REMARKS

In response to the Office Action mailed on January 14, 2005, Applicants respectfully request reconsideration. To further the prosecution of this Application, Applicants submit the following amendments as well as remarks discussing patentability of rejected and newly added claims. Applicants are appreciative of the interview on April 11, 2005 discussing the pending claims in view of the cited Nolan reference.

Applicants submit references cited in a potentially related pending patent application (U.S. Patent Application Serial Number 10/186,250). However, Applicants submit that all pending claims are distinguished over these references as well as those cited by the Examiner in this case.

Claims 1-33 and 35-45 were previously pending in the subject Application. Claims 46-49 are being added by way of this amendment. Thus, after entry of this Amendment, claims 1-33 and 35-49 will be pending. No new matter was added to the application when adding the new claims.

The following remarks address the rejections of claims 1-33 and 35-45 as set out in the present Office Action as well as patentability of newly added claims 46-49. Applicants respectfully request reconsideration.

<u>Rejection of Pending Claims 1-33 and 35-45 under 35 U.S.C. §102(e)</u>

The Examiner has rejected submitted claim 1 under 35 U.S.C. §102(e) as being anticipated by Nolan (U.S. Patent 6,640,278). The Office Action likens elements in Nolan to those in claim 1 to reject the claimed invention. Applicants have amended claim 1 to include some of the limitations in pending claim 11 as suggested by the Examiner. Thus, no new matter has been presented in the pending claims.

In general, Nolan discloses a storage area network in which hosts (e.g., servers) access data in respective target storage systems through a "switch domain" of a network between the hosts and the storage devices. Nolan at column 2 lines 42-46 indicates that her invention resides at an intermediate node of a storage area network between file servers and storage systems. Storage transactions (such as reads or writes of data from a client to the storage systems) are received by the intermediate device and are managed according to the configuration of a respective storage domain defined by configuration logic in the intermediate device (Nolan, column 2, lines 46-49). Thus, Nolan discloses a technique of providing restrictive access to data in respective storage resources. However, Applicants of the present application are not claiming this as their invention.

Applicants respectfully submit that verbiage of the claims should be given their broadest reasonable meaning in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definition or otherwise that may be afforded by the written description contained in the Applicant's specification (MPEP 2111). Given this claim interpretation standard as a guideline, Applicants respectfully submit that the term "generic zone control command" in claim 1 would have a specific meaning to those of ordinary skill in the art. For example, in view of the specification, one of ordinary skill in the art would understand that the term "generic zone control command" refers to a command used to configure zone settings in a storage network.

Applicants have reviewed the language of claim 1 in light of the cited Nolan reference and would like to point out differences between claim 1 and the system as disclosed by Nolan. It is important to understand that Nolan discloses providing restrictive access to data, but does not perform translation for a "zone

control command" as in the claimed invention. For example, in contradistinction to Nolan, the method of the claimed invention includes converting a generic zone control command into one or multiple different vendor specific zone control command formats to control "zoning" within a storage network

For example, the Office Action cites Nolan at column 3, lines 7-11; and column 8, lines 37-40 as being equivalent to the first element of claim 1, namely the claimed step of "receiving a generic zone control command."

Applicants submit that this cited language in Nolan is not equivalent to receiving a generic zone control command for configuring zones in a storage network as in the claimed invention. Instead, the cited passages pertain to receiving a client request for execution of a data storage transaction such as a read or write from a server to a target storage system of a storage area network. This is further disclosed at column 6, line 65 to column 7, line 4 of Nolan. Also, see column 1, lines 31-40. Also, see column 8, line 37 to column 9, line 20 disclosing processing of a storage transaction depending on a configuration of a device in the storage area network. The claimed invention pertains to setting up a zoning configuration in a storage area network prior to execution of data storage transactions. In other words, the Examiner cites passages in Nolan that pertain to processes that occur after configuring intermediate nodes via LUN mapping as discussed starting at column 26.

The Office Action cites Nolan at column 2, lines 18-40; and column 8, lines 24-34, column 9, lines 21-31, and column 10, lines 27-49 as being equivalent to the second element of claim 1, namely the claimed step of "translating the generic zone control command to at least one vendor specific device command of a plurality of vendor specific device commands that respectively control zoning in a plurality of different vendor devices."

There are two passages in Nolan that recite translation techniques. However, the cited translation techniques pertain to executing storage transactions between a host sever and a storage device in a storage area network rather than converting a generic zone control command into one or more vendor specific commands to configure a setting of a zone in the storage area network.

For example, at column 2, lines 34-36, Nolan recites translating a storage transaction associated with a request from a client through a server, not translating a zone control command. The storage transaction commands in Nolan do not control zoning. The storage transaction commands are generated by users that communicate with file serves to access data (column 1, lines 31-40). Data channels in the storage area network implement communication protocols to manage storage transactions.

Nolan indicates that her "system" in the intermediate device of the storage area network receives a storage transaction request from a server for data in a storage system and enforces a storage domain by translating the storage transaction into a common format for routing communications associated with the request to a target storage device from which data shall be retrieved. This translation of the storage transaction request enables communications between a host server and the storage systems of the storage area network. Otherwise, without the translation, the host would not be able to communicate with the target storage device. Thus, Nolan at column 9, lines 21-24 specifically recites that the "format translation" supports controlling the storage systems, not controlling a zone configuration as in claim 1.

Nolan at column 10, lines 30-33 indicates that her "preferred system" translates storage transactions to a common messaging scheme format. The Examiner therefore concludes in the Office Action that "Nolan teaches of the

storage transactions being translated to a common messaging format." In other words, different messaging schemes form the host servers are converted to a common format understood by the storage resource. This is opposite to the claim language of claim 1 and therefore teaches away from the claimed invention. For example, claim 1 recites translation of a generic command (e.g., of a common format) to different vendor specific commands to which the generic command is targeted. This is an additional reason how the claimed invention differs over the cited prior art.

The Office Action cites Nolan at column 26, line 24 to column 27, line 30 and column 34, line 25 to column 35, line2 as being equivalent to the third element of claim 1, namely a step of "performing functions associated with the at least one vendor specific device command to control zoning in the device."

Applicants appreciate that Nolan teaches an implementation of a storage domain manager that has the ability to manage communications from hosts through different types of vendor devices to a data storage system. However, Nolan does not disclose the techniques of managing zoning in the same way discussed above and therefore does not anticipate the claimed invention. For example, as cited by the Examiner, Nolan discloses a method of access control via use of LUN mapping. Additionally, column 26, line 25 to column 27, line 30 does describe configuring the storage area network for storage access. However, there is no indication that Nolan supports receiving a "generic zone control command" and "translating the generic zone control command" for purposes of controlling zoning in a plurality of different vendor devices. This reference does not address this technical problem and therefore does not teach a method to overcome it as does the present invention.

Accordingly, based on a review of cited passages in Nolan and above discussion, Applicants respectfully submit that Nolan does not teach or suggest

controlling "zoning within a device" nor "controlling zoning in a plurality of different vendor devices" based on a method of receiving a generic command to control zoning of the vendor devices and, thereafter, translating the generic command into vendor specific zoning control commands for purposes of controlling zoning as in the claimed invention. Therefore, Nolan does not appreciate the technical hurdles addressed by the present invention nor does it suggest a technique of overcoming them.

The claimed invention is advantageous because a network manager can translate a generic zone control command into a plurality of different vendor specific commands to control a configuration of "zoning" associated with a device or each of multiple different types of vendor specific devices in a storage network application. Providing capability for a localized zone control management translation function as in the claimed invention eliminates the need to convert generic zone control commands at corresponding different vendor switch devices. Instead, a single management station can receive a generic zone control command from a user and convert the generic zone control command into respective vendor specific device commands to control zoning of multiple vendor devices. Nolan does not state the problem and therefore does not teach a way to overcome the technical problem of managing multiple vendor types of devices via use of a generic zone control command as does the claimed invention.

For the reasons stated above, Applicants submit that claim 1 is patentably distinct and advantageous over the cited prior art, and the rejection of claim 1 under 35 U.S.C. §102(b) should be withdrawn. Accordingly, allowance of claim 1 is respectfully requested. If the rejection of claim 1 is to be maintained, Applicants respectfully request that it be pointed out with particularity where the cited prior art discloses a technique of translating the generic zone control

command into one or more vendor specific commands to control zoning within a device as recited in claim 1.

Because claims 2-11, 28-32, and 36-40 depend from and further limit claim 1, Applicants submit that claims 2-11, 28-32, and 36-40 are in allowable condition as well. Also, Applicants would like to point out that the claimed invention pertains to configuring rather than utilizing a mapping of host servers to storage arrays to translate a transaction request for data as in Nolan. Throughout the entire office action, the Examiner on one hand discusses processing storage transaction requests for data in Nolan with processes of configuring storage domains to support the access control via intermediate devices in a storage area network. The two processes are separate. That is, the storage transaction requests do not have anything to do with configuring the intermediate nodes of the storage area network. Accordingly, Nolan does not teach or suggest any of the dependent claims.

Applicants respectfully submit that claim 12 includes similar patentable distinctions over the cited prior art as claim 1. Thus, Applicants respectfully request allowance of claim 12 as well as corresponding dependent claims 13-23, and 41-45.

Applicants respectfully submit that claims 24 and 27 include similar patentable distinctions as discussed over the cited prior art as claim 1. Thus, Applicants respectfully request allowance of claim 24 and corresponding dependent claims 25-26 as well as claim 27.

Applicants further respectfully add that claims 36, 38, 39, 41, 43, and 44 recite that the generic zone control command is used to configure zones in a storage network. The passages recited by the Examiner discuss storage

transactions requests generated by users requesting data from storage. These are entirely different concepts as discussed above.

Also, Applicants present the Examiner with a question as to whether the rejection of claims 28-32, 40-41, and 45 should be an obviousness rejection in lieu of a 102 rejection. Applicants submit that the Nolan does not include any of these features as recited in the claims.

New claims 46-49

Support for newly submitted claim 46-48 can be found at page 14 line 11 to page 19 line 10 and elsewhere throughout the specification.

Support for newly submitted claim 49 can be found at page 25 line 11 to page 27 line 5 and elsewhere throughout the specification. Applicant respectfully request allowance of these claims as well.
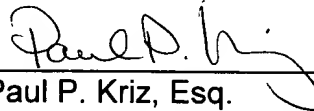
CONCLUSION

In view of the foregoing remarks, Applicants submit that the pending claims as well as newly added claims are in condition for allowance. A Notice to this affect is respectfully requested. If the Examiner believes, after reviewing this Response, that the pending claims are not in condition for allowance, the Examiner is respectfully requested to call the Representative.

Applicants hereby petition for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. <u>50-0901</u>.

Respectfully submitted,

Paul P. Kriz, Esq.
Attorney for Applicant(s)
Registration No.: 45,752
CHAPIN & HUANG, L.L.C.
Westborough Office Park
1700 West Park Drive
Westborough, Massachusetts 01581
Telephone: (508) 366-9600
Facsimile: (508) 616-9805
Customer No.: 022468

Attorney Docket No.: <u>EMC00-01(00010)</u>

Dated: <u>April 13, 2005</u>